SOUTHEASTERN LOUISIANA UNIVERSITY
DEPARTMENT OF MATHEMATICS
MATH 163 SYLLABUS

COURSE TITLE: Calculus for the Biological, Business and Social Sciences   **CREDIT:** 3 semester hours

TEXT: *Calculus with Applications Brief Version*, 8th Edition, Lial/Greenwell/Ritchey   **PUBLISHER:** Pearson Addison Wesley

PREREQUISITE: Math 155 or 161.

COURSE DESCRIPTION: An introduction to differential and integral calculus designed for students majoring in business, biology, psychology, industrial technology, economics, and other social sciences. Topics include limits, the first and second derivative, the first and second derivative test for relative extrema, the definite and indefinite integral, and the Fundamental Theorem of Calculus. Calculus will be used to solve real world applications. A graphing calculator is required for this course.

SPECIFIC COURSE CONTENT – the section numbers in the textbook covering these topics are given after the topic:
Business Vocabulary (1.2)
Polynomial and Rational Functions (2.3)
Exponential Functions (2.4)
Logarithmic Functions (2.5)
Applications: Growth and Decay (2.6)
Limits (3.1)
Definition of Derivative, equation of tangent line, graph of a derivative (3.4)
Computing derivatives, marginal analysis, demand functions (4.1)
Derivative of Product and Quotient, average cost (4.2)
Chain Rule (4.3)
Derivative of Exponential Functions (4.4)
Derivative of Logarithmic Functions (4.5)
Increasing and Decreasing (5.1)
Relative Extrema (5.2)
Concavity (5.3)
Absolute Extrema (6.1)
Antiderivatives (7.1)
Substitution (7.2)
Area and Definite Integral (7.3)
Fundamental Theorem of Calculus (7.4)
Area between Two Curves (optional) (7.5)

   NOTE: All sections of Math 163 will have a minimum of 3 regular examinations and a final examination, in addition to quizzes and/or homework.

EMAIL REQUIREMENT: All correspondence will be made through your Southeastern email account.

DISABILITY ACCESS STATEMENT: If you are a qualified student with a disability seeking accommodations under the Americans with Disabilities Act, you are required to self-identify with the Office of Disability Services, Room 203, Student Union. No accommodations will be granted without documentation from the Office of Disability Services.

ACADEMIC INTEGRITY: Students are expected to maintain the highest standards of academic integrity. Behavior that violates these standards is not acceptable. Examples include the use of unauthorized material, communication with fellow students during an examination, attempting to benefit from the work of another student, and similar behavior that defeats the intent of an examination or other class work.